



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,663	06/27/2003	Justin Wade Hart	06005/39231	7072

4743 7590 11/15/2005

MARSHALL, GERSTEIN & BORUN LLP
233 S. WACKER DRIVE, SUITE 6300
SEARS TOWER
CHICAGO, IL 60606

EXAMINER

KRISHNAMURTHY, RAMESH

ART UNIT PAPER NUMBER

3753

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

mlh

Office Action Summary	Application No. 10/608,663	Applicant(s) HART ET AL	
	Examiner Ramesh Krishnamurthy	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 23 is/are pending in the application.
- 4a) Of the above claim(s) 8 - 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 7 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

This office action is responsive to amendment filed 08/31/05.

Claims 1 – 23 are pending.

1. Applicant's election with traverse of invention of Group I, claims 1 - 7 in the reply filed on 03/14/2005 is acknowledged. The traversal is on the ground(s) that the combination is not distinct from the subcombination and that the search would not be a serious burden.

The arguments are not found to be persuasive because they fail to evince an appreciation that the inventions claimed are not patentably distinct. The combination claimed does not require all the limitations claimed in the sub-combination. Additionally, the restriction requirement was made on the basis that the claimed inventions are, in fact, patentably distinct, and not on the basis of how they are searched. Applicant's argument that a combined search does not present a serious burden on the examiner does not render the once considered patentably distinct species now not patentably distinct.

It is further noted that the Group II invention, claims 8 – 22, contains two separate inventions and not species as characterized in the response filed 03/14/05.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1 – 7 and 23 remain for further consideration. Claims 8 – 22 are withdrawn from further consideration.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 3753

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1 – 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miura (US 4,147,179) in view of GB 393 761.

Miura discloses a pressure regulator, comprising: a housing (1); an inlet (the line connecting source (25) to the housing (1)) in the housing receiving fluid reduced to a first pressure; an outlet (3) in the housing exhausting fluid compressed at a second pressure; a passage (4) connecting the inlet to the outlet; a plug (6) biased by a spring (12) and movably connected in the housing and disposed in the passage, the plug being movable between a range of positions extending from a first position closing the passage, to a second position fully opening the passage; and a spring-biased reverse pressure exhaust valve (29) in the housing extending between the outlet and the inlet, the reverse pressure exhaust valve being normally closed, the reverse pressure exhaust valve opening when pressure within the outlet exceeds pressure within the

regulator inlet by a predetermined amount. An adjustment mechanism (14) is disclosed for adjusting the bias provided by the spring.

The patent to Miura discloses the claimed invention with the exception of explicitly disclosing the reverse-pressure exhaust valve to include a ball element. Miura discloses the valve element in the reverse-pressure exhaust valve to be a plug.

The document GB 393 761 discloses in Figures 1 and 3 an exhaust valve (17) wherein in Fig. 1 it includes a ball element and in Fig. 3 it includes a plug element, thereby clearly establishing the art-recognized equivalence of these two types of check valve. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in Miura a ball element in the check valve in place of the plug, since ball is an art-recognized equivalent of the plug in a check valve, as evident from GB 393 761.

5. Claims 4, 5 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Miura (US 4,147,179) and GB 393 761 as applied to claims 1 – 3 and 6 above, and further in view of Nimberger (US 5,090,438).

The combination of Miura and GB 393 761 discloses the claimed invention with the exception of explicitly disclosing either a filter or a moisture trap disposed between the inlet and the outlet of the pressure regulator.

The patent to Nimberger discloses that it is known in the art to provide a moisture trap and filter that is disposed between the inlet (14) and the outlet (16) of the pressure regulator for the purpose of providing a clean and dry fluid supply to points downstream thereof.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the combination of Miura and GB 393 761 a moisture trap and a filter for the purpose of providing a clean and dry fluid supply to points downstream of the pressure regulator, as recognized by Nimberger.

It is noted that Nimberger also discloses a drain (30) permitting the removal of the liquid from the moisture trap.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Miura (US 4,147,179) and GB 393 761.

The combination of Miura and GB 393 761 discloses the claimed invention with the exception of explicitly disclosing the spring being sized to open the exhaust valve at about six psi.

7. Examiner takes official notice that it is well known to choose a spring based on the desired opening pressure and the particular value of six psi is a design choice over those features disclosed in the combination of Miura and GB 393 761 in that it neither solves any stated problem nor provided any new and/or unexpected result. Furthermore, it is noted that GB 393, 761 discloses an adjustment member (18) that is provided to adjust the opening pressure of the exhaust valve (17) by regulating the spring pressure. Clearly, whether one chooses a spring of a certain size or provides an adjustment mechanism for adjusting the pressure exerted by the spring is a design consideration.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

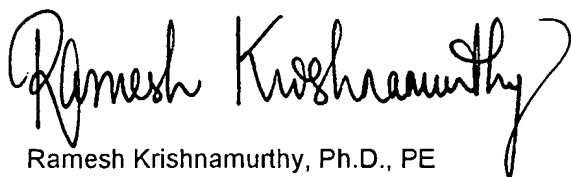
Response to Arguments

9. Applicant's arguments with respect to claims 1 – 7 and 23 have been considered but are moot in view of the new ground(s) of rejection. As for the applicant's argument concerning the use of Official notice regarding claim 7, it is noted that applicant has shown no criticality with regards to the value of 6 psi. Thus, it is proper to hold that to be a design expedient. Furthermore, it is noted that GB 393, 761 discloses an adjustment member (18) that is provided to adjust the opening pressure of the exhaust valve (17).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen L. Blau, can be reached on (571) 272 – 4406. The fax phone number for the organization where this application or proceeding is assigned is (571) 273 – 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ramesh Krishnamurthy, Ph.D., PE
Primary Examiner
Art Unit 3753